

Notice of Allowability

Application No.

10/670,408

Applicant(s)

AI, XIAOLAN

Examiner

David D. Le

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment after Final dated 25 June 2007.
2. ☒ The allowed claim(s) is/are 1-6,10,11,13,15,16,18,19 and 21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other: _____

DETAILED ACTION

1. This is the seventh Office action on the merits of Application No. 10/670,408, filed on 25 September 2003. Claims 1-6, 10, 11, 13, 15, 16, 18, 19 and 21 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 12/29/03
 - Information Disclosure Statement, received on 03/19/04

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 1:

- Line 10, a period --.-- has been inserted at the end of the equation.

Claim 4:

- Line 4, a period --.-- has been inserted at the end of the equation.

Allowable Subject Matter

4. Claims 1-6, 10, 11, 13, 15, 16, 18, 19 and 21 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious a wedge loading mechanism for a planetary traction drive comprising a roller, two raceways, a convergent wedge, and a flexible mounting, as recited in claim 1; specifically, wherein the flexible mounting includes a preselected stiffness ratio and a maximum available friction coefficient, which are characterized by the equation as recited in claim 1.

Claim 10:

The prior art of record fails to show or render obvious a method of transmitting rotational motion and torque within a traction drive device, as recited in claim 10; specifically, wherein the method includes the step of providing a flexibly mounted wedge loading mechanism having a predetermined stiffness ratio K_S/K_R that is a function of a wedge angle for different operating friction coefficients, which is characterized by the equation as recited in claim 10.

Claim 11:

The prior art of record fails to show or render obvious a wedge loading mechanism for a planetary traction drive comprising a roller, two raceways, a convergent wedge, and a flexible mounting with a predetermined travel range that limits the operating friction coefficient at or close to a maximum available friction coefficient, as recited in claim 11; specifically, wherein the flexible mounting includes a predetermined stiffness ratio K_S/K_R , which is characterized by the equation as recited in claim 11.

Claim 13:

The prior art of record fails to show or render obvious a wedge loading mechanism for a planetary traction drive comprising a roller, two raceways, a convergent wedge, and a flexible mounting, as recited in claim 13; specifically, wherein the flexible mounting includes a predetermined stiffness ratio K_S/K_R , which is characterized by the equation as recited in claim 13.

Claim 16:

The prior art of record fails to show or render obvious a wedge loading mechanism for a planetary traction drive comprising a roller, two raceways, a convergent wedge, and a flexible mounting, as recited in claim 16; specifically, wherein the flexible mounting includes a predetermined stiffness ratio K_S/K_R , which is characterized by the equation as recited in claim 16.

Claim 19:

The prior art of record fails to show or render obvious a method of transmitting rotational motion and torque within a traction drive device, as recited in claim 19; specifically, wherein the method includes the step of providing a flexibly mounted wedge loading mechanism having a predetermined stiffness ratio K_S/K_R that is characterized by the equation as recited in claim 19.

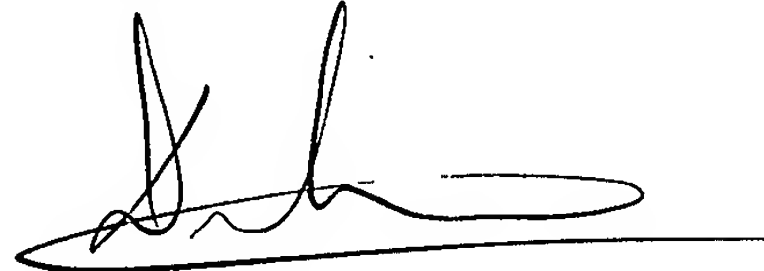
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'David D. Le', written over a horizontal line.

David D. Le
Primary Examiner
Art Unit 3681
06/29/2007

ddl